Remarks/Arguments

Summary

"Claim Rejections for Application Control Number 09/853,163 mailed 8/26/03", had rejected this patent application (Sun/Choudhry) on the basis of "as being anticipated by Low et al (patent 6,131,095) ."

Low's patent uses standard subdomains and does not mention the term "virtual subdomain", a key term which formed the basis of this application's specifications and original 14 claims

New claims are written by changing the original claims' term "virtual subdomains" to "dynamically generated and/or administered subdomains" or "unregistered and/or unrecognized subdomains". Low's standard subdomains do not have the new claims' dynamic or unregistered capabilities, and as a result, Low's system is different, less accurate and far more costly to administer.

DNS's Standard Subdomains

In responding to the Examiner's rejection of the original 14 claims, we first better define the terminology "subdomain". Low doesn't use the term "subdomains" or "virtual subdomain" and instead uses "domains" or "hosted domains", from which it can be determined Low's subdomains are a standard DNS sublevel domain, which we name here "standard subdomain."

The immediately below sentence supports that Low's subdomains are the same as standard subdomains.

Low, filed 12/11/96 [Column 16, 54-56, 63-65]: "For every host domain name in the host domain space there is a Registration Record held by the Duris ("standing for DNS-type URL Server") system containing the corresponding URI."

Choudhry explained the disadvantages of standard subdomains:

Choudhry, filed 12-31-1999 [Col.3 lines 60-67 and Col. 4 lines 1-10]: "In reality, (the process of creating and modifying standard subdomains) may involve accessing physically or remotely the file systems of several servers, including log-on and password procedures. To be done correctly, some form of traffic engineering should be done to estimate the impact of adding a particular subdomain to the current name server with respect to the additional traffic or number of "hits" it will receive. The architecture implemented by the definitions and combinations of the domains and subdomains on specific server machines ultimately defines the performance and responsiveness of the network. Thus, not only do network administrators create new resource records when creating a new subdomain, but they also must continuously modify these records to optimize for ever-changing traffic patterns. A further drawback of the prior art process is that the creation of real subdomains has to be recognized and propagated by DNS servers throughout the Internet, a process that can take from 1 day to 2 weeks including administrative delays and 18 to 24 hours network propagation delay."

"Virtual" Subdomains is Different from Standard Subdomain

The original 14 claims are correct considering that the distinguishing key term used throughout the original 14 claims is "virtual subdomain", which is defined in Sun/Choudhry and detailed in Choudhry. As noted in Sun/Choudhry:

> Sun/Choudhry [0001] "This application claims is related to U.S. application Ser. No. 09/476,632 filed by Azkar Choudhry on Dec. 31, 1999 which is commonly assigned with this application."

> (Choudhry application subsequently became patent #6,442,602, with very minor changes in the specifications and claims. I shall refer to both Choudhry application and patent as "Choudhry", and use the easier-to-read Choudhry patent's side-margin line numberings in the below quotes. To the best of my knowledge, these quotes are identical to the Choudhry's application quotes.)

> Sun/Choudhry [0026] "As the virtual subdomain which is described in the related and incorporated application (Choudhry) is a dynamically created and dynamically managed addressing scheme...."

> Sun/Choudhry [0037] "This invention is realized by associating a web server script with a virtual subdomain server. Of course, the script may be co-resident within the same web server or house or hosted within different web servers. The virtual subdomain server is described in the related application. The virtual

subdomain server translates virtual subdomains to other types of Internet addressing schemes such as subdirectory names or other domains and subdomains. As this is done in real time, the virtual subdomain may be repointed to any other destination address as desired dynamically."

The term "virtual subdomain" is used both in Choudhry and Sun/Choudhry (this application) identically, and as such the original claims 1-14 are correct because their "virtual subdomain" term used is different from Low's usage of standard subdomains and the resulting impact very different, as further explained below.

The new claims are written using the terms "dynamically created and/or administered subdomains" or "unregistered and/or unrecognized subdomains", which are terms described in both Choudhry's specifications and claims and Sun/Choudhry's specifications.

Whereas Low's prior-art standard subdomains are registered and recognized by DNS and not dynamic; Sun/Choudhry "virtual subdomains" are unregistered and unrecognized and are dynamic. Low uses entirely standard DNS and DNS-like systems in his patent; Sun/Choudhry works with, but is not part of DNS. Sun/Choudhry uses different types of subdomains and is a different system.

Sun/Choudhry [0026] "As the virtual subdomain which is described in the related and incorporated application is a dynamically created and dynamically managed addressing scheme, the webBIZdex itself may actually be a distributed database across multiple servers and may be dynamically reorganized and changed. This further allows the owners or holders of the electronic business cards to easily and

quickly update there own personal information within any database which is linked to the virtual or which is associated to the virtual subdomain for his business card."

Sun/Choudhry [0042] Secondly, the owner of a web business card may redirect his virtual subdomain to any web source, at any time, dynamically, due to the dynamic nature of the virtual subdomain redirection capabilities. This eliminates the costly expense of maintenance of a large centralized database of electronic business cards.

Sun/Choudhry [0040] ... described in the related application whereby the virtual subdomain server intercepts the request for the unregistered virtual subdomain name....

Sun/Choudhry's dynamic and unregistered subdomains are further explained in Choudhry:

Choudhry [Claim 1] ....a virtual subdomain on an Internet domain name server, comprising the steps of: receiving from an Internetworked client computer a request for an Internet document at an unrecognized unregistered subdomain address;....

Choudhry [Claim 5] ....An Internet virtual subdomain name server for providing Internet address management for unregistered and unrecognized subdomains, said virtual subdomain name server comprising:....

Low's patent had no such concept of subdomains that are "dynamically created and/or dynamically managed". And Low doesn't have the concept of "unregistered unrecognized subdomains". Low uses prior-art standard subdomains, which are more difficult to create and manage.

Advantages of Sun/Choudhry over prior art and Low

The reason that the "dynamically generated and/or dynamically managed subdomain", "unregistered and unrecognized subdomains", and virtual subdomains are valuable is because these facilitate administering subdomains and bypasses the DNS propagation delay of subdomains (as explained above). Hence, these reduce administration cost and improve accuracy.
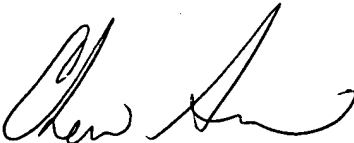
Low's system will be very costly to administer, if it had been utilized on a large scale with thousands or millions of domains with subdomain names that need to be changed rapidly. Such can happen in a hypothetical Low-like or Low-anticipated implementation, if for example, thousands or millions of Internet domains had their associated organization's people's names listed as subdomains, and these people needed to be change to new domains, because they changed associated organizations. Millions of people's names may be affected daily, causing complete chaos in different domain administrators' setup time schedules and unreliability in subdomain DNS propagation. Low's system would be expensive to administer if people's names were the subdomain choice for numerous domains. WebBIZdex is specifically designed so that subdomain names can be easily and dynamically changed, even if administered for all Internet domains.

Sun/Choudhry's WebBIZdex now enable low administrative cost and quickly changing (better accuracy) indexes to be built using subdomains. Using Sun/Choudhry, even end users can quickly create and manage subdomains and can easily and accurately perform searches, for all subdomain applications, in addition to Low's restrictive telephone number subdomain usage, and for large quantities of quickly changing subdomains on many different domain names.

In the new claims, the term "unregistered and/or unrecognized subdomains" is used for the unregistered characteristics of the type of subdomain used, and the term "dynamically created and/or dynamically managed" is used for its dynamic capabilities.

Conditional Request for Constructive Assistance

Applicants have amended the claims of this application so that they are proper, definite, and define novel structure which is also unobvious. If, for any reason, this application is not believed to be in full condition for allowance, applicants respectfully request the constructive assistance and suggestions of the Examiner pursuant to M.P.E.P. 2173.02 and 707.07(j) in order that the undersigned can place this application in available condition as soon as possible and without the need for further proceeding.

1/5/04